

Remarks

Claims 1 and 12-14 have been amended. No claims have been canceled.

Therefore, claims 1-14 are presented for examination.

In a Final Office Action mailed May 12, 2006, claims 1, 2, 3, 4, 7, 9, 11, 12, 13 and 14 stand rejected under 35 USC § 103(a) as being unpatentable over Rakib et al. (U.S. Patent No. 6,426,983) in view of Domino et al. (U.S. Patent No. 6,259,752).

Applicants submit that the present claims are patentable over Rakib in view of Domino.

Rakib discloses a narrow band interference excision circuit for use in broadband digital data communication systems such as CDMA systems. The excision circuit includes a matrix of polyphase filters that divide the input signal into a plurality of narrow subbands. Each narrow subband signal is examined to determine if narrowband interference exists in that bin. This is done preferably by computing the average power of the subband signal. If a signal in a bin has an average power greater than some adjustable or adaptive threshold, then the entire subband signal is eliminated. A bank of polyphase synthesis filters reassembles the composite signal. An equalization circuit with an error predictor comprised of an adaptive FIR filter is coupled to adapt coefficients of the filter and generate a colored noise cancellation signal to remove colored noise from the input to the slicer. See Rakib at Abstract.

Domino discloses a system for reducing internal interference in a radio-frequency (RF) receiver includes providing a plurality of time slots within a frame where the receiver is configured to receive external RF signals during a receive time slot within the frame. External RF signals are prevented from reaching a front-end portion of the receiver and the receiver is activated, and a predetermined period of time is permitted to elapse to permit the receiver to settle. An interference data collection is performed

during a period of time prior to a predetermined receive time slot where the data collected represents internally generated interference signals. The data collected during the interference data collection is processed to determine a bias value corresponding to the interference signals, and the receiver is then permitted to receive external RF signals during the predetermined receive time slot so that data is collected during the predetermined receive time slot. The data collected during the predetermined receive time slot is processed and the bias value is subtracted from the data collected to provide output data corresponding to the external RF signals absent the interference signals. See Domino at Abstract.

Claim 1 of the present application recites a threshold generator for generating a threshold as a first function of an average of amplitudes of a plurality of said amplitude samples. Applicants submit that neither Rakib nor Domino disclose or suggest a threshold generator. Rakib discloses a method carried out by a detection and cancellation circuit for determining if a narrow band interference signal is present in a bin by computing the average power of all the signals in the bin or subband and comparing that average power to an adaptable threshold that is set so as to detect most instances of narrowband interference. See Rakib at col. 5, ll. 60-65.

Although there is a disclosure of averaging the power of signals and comparing the average to a threshold, there is *no disclosure of generating a threshold using an average of amplitudes of samples*, as recited in claim 1. Rakib simply discloses that the threshold may be adaptable. However, there is no disclosure or suggestion as to how the threshold is generated. Therefore, Rakib cannot be considered to disclose a process of

generating a threshold as a first function of an average of amplitudes of a plurality of amplitude samples.

Moreover, claim 1 recites a corrector to transmit a signal to a threshold generator indicating that the threshold generator is to exclude from an average any of the amplitude samples whose amplitude exceeds the threshold. Applicants also submit that Rakib and Domino both fail to disclose or suggest the transmission of a signal to a threshold generator indicating that the threshold generator is to exclude from an average any of the amplitude samples whose amplitude exceeds the threshold.

The Final Office Action admits that Rakib fails to disclose such a feature. See Office Action at page 5, second full paragraph. Instead, Domino is cited as disclosing the feature. *Id.* at third full paragraph. Particularly, col. 7, ll. 9-21 of Domino is cited as disclosing the claimed feature. *Id.*

The referenced passage recites:

As described above, the frame format continuously repeats, and a receive time slot designated as 116 in dashed lines represents the next receive time slot in the subsequent frame 101. Preferably, the receiver 10 receives only during one specific time slot within the frame 100 and transmits only during one specific time slot within the frame. However, the receiver 10 may be configured to receive or transmit during more than one time slot within the frame 100, of course, with a corresponding reduction in bandwidth capacity.

The receiver 10 also performs an "interference data collection" during an interference time slot 120, which occurs prior to the receive time slot 112. Thus, the interference time slot 120 uses a portion of a time slot prior to the predetermined receive time slot, which is shown in the illustrated embodiment of FIG. 2 as slot 8 labeled as 109.

Domino at col. 7, ll. 9-23.

Applicants submit that there is no disclosure or suggestion in the relied upon passage of a corrector to transmit a signal to a threshold generator indicating that the threshold generator is to exclude from an average any of the amplitude samples whose amplitude exceeds the threshold.

Because Rakib and Domino fail to disclose or suggest a threshold generator for generating a threshold as a first function of an average of amplitudes of a plurality of said amplitude samples, or a corrector to transmit a signal to a threshold generator indicating that the threshold generator is to exclude from an average any of the amplitude samples whose amplitude exceeds the threshold, any combination of Rakib and Domino would also fail to disclose or suggest the features. Therefore, claim 1 is patentable over Rakib in view of Domino.

Claims 2-11 depend from claim 1 and include additional features. Thus, claims 2-11 are also patentable over Rakib in view of Domino.

Independent claims 12-14 also recite a threshold generator for generating a threshold as a first function of an average of amplitudes of a plurality of said amplitude samples, and a corrector to transmit a signal to a threshold generator indicating that the threshold generator is to exclude from an average any of the amplitude samples whose amplitude exceeds the threshold. Thus, claims 12-14 are patentable over Rakib in view of Domino for the reasons discussed above with respect to claim 1.

Claim 5 stands rejected under 35 USC § 103(a) as being unpatentable over Rakib in view of Domino, and further in view of Staudinger et al. (U.S. Patent No. 6,407,634). Applicants submit that the present claims are patentable over Rakib and Domino even in view of Staudinger.

Staudinger discloses a linear envelope tracking radio frequency (RF) power amplifier having an adaptive analog signal processing circuit. The amplifier outputs a voltage which is sampled by the adaptive analog signal processing circuit. The adaptive analog signal processing circuit generates an error signal which varies the linearity of the power amplifier. The error signal controls a modulator which in turn controls the supply voltage to the power amplifier. The control signal varies a controller which in turn varies a load placed on the power amplifier. The load in turn varies in linearity of the amplifier. See Staudinger at Abstract.

However, Staudinger does not disclose or suggest a threshold generator for generating a threshold as a first function of an average of amplitudes of a plurality of said amplitude samples, or a corrector to transmit a signal to a threshold generator indicating that the threshold generator is to exclude from an average any of the amplitude samples whose amplitude exceeds the threshold. As discussed above, the combination of Rakib and Domino also does not disclose or suggest these features. Thus, any combination of Rakib, Domino and Staudinger would also not disclose the features. As a result, the present claims are patentable over the combination of Rakib, Domino and Staudinger.

Claim 6 stands rejected under 35 USC § 103(a) as being unpatentable over Rakib in view of Domino and further in view of Ma et al. (U.S. Patent No, 6,292,054). Applicants submit that the present claims are patentable over Rakib and Domino even in view of Ma.

Ma discloses a signal amplification system involves decomposing a signal into two or more parts, amplifying the parts and then combining the amplified parts to produce the amplified signal. The decomposition can be done such that the resulting

parts have characteristics that are amenable to efficient amplification. See Ma at Abstract.

Nonetheless, Ma does not disclose or suggest a threshold generator for generating a threshold as a first function of an average of amplitudes of a plurality of said amplitude samples, or a corrector to transmit a signal to a threshold generator indicating that the threshold generator is to exclude from an average any of the amplitude samples whose amplitude exceeds the threshold. As discussed above, the combination of Rakib and Domino also does not disclose or suggest such features. Therefore, any combination of Rakib, Domino and Ma would also not disclose the features. Accordingly, the present claims are patentable over the combination of Rakib, Domino and Ma.

Claims 8 and 10 stand rejected under 35 USC § 103(a) as being unpatentable over Rakib in view of Domino and further in view of Pulley et al. (U.S. Patent No. 6,754,292). Applicants submit that the present claims are patentable over Rakib and Domino even in view of Pulley.

Pulley discloses a receiver circuit is for processing a received signal which includes at least a first portion and a second portion which repeats the content of the first portion after a repeat interval. For example, the receiver may be for DVB-T signals using COFDM. Two correlation values are measured. The first is between the first portion of the received signal, delayed by the repeat interval plus a difference interval, and the second portion. The second is between the first portion of the received signal, delayed by the repeat interval minus a difference interval, and the second portion. Any difference between the correlation values represents a difference between the receiver sampling rate,

and the required sampling rate, and can be used to adjust the receiver sampling rate. See Pulley at Abstract.

Nevertheless, Pulley does not disclose or suggest a threshold generator for generating a threshold as a first function of an average of amplitudes of a plurality of said amplitude samples, or a corrector to transmit a signal to a threshold generator indicating that the threshold generator is to exclude from an average any of the amplitude samples whose amplitude exceeds the threshold. As discussed above, the combination of Rakib and Domino also does not disclose or suggest such features. Therefore, any combination of Rakib, Domino and Pulley would also not disclose the features. Consequently, the present claims are patentable over the combination of Rakib, Domino and Pulley.

Applicants respectfully submit that the rejections have been overcome, and that the claims are in condition for allowance. Accordingly, applicants respectfully request the rejections be withdrawn and the claims be allowed.

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

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Respectfully submitted,
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